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DELAVAN PRAIRIE: AN ILLINOIS CORN BELT COMMUNITY

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THE SETTING

Delavan Prairie in central Illinois, 35 miles southeast of Peoria, is a fair sample of the richly endowed American Corn Kingdom. Nature has here been abundantly lavish. The soil has the exuding richness of black earth mold even after nearly a century of cultivation, a result of age long activity of grass roots on loess-covered glacial till. Topography is generally quite level, despite the fact that a considerable geologic diversity occurs in the area, which includes sections of Early Wisconsin ground moraine, terminal moraine, and outwash plain as well as Illinoian till plain. Prairie grasses, predominately of the blue stem type, formerly comprised the billowy waves of this natural prairie, wherein fed the deer and the buffalo. Temperature and rainfall, tho the latter is tinged with the inconstancy of continentality, are in most years favorable to crops and man.

EARLY ADJUSTMENTS

The Delavan Association, a stock company organized in Providence, Rhode Island, in 1833 for the purpose of encouraging western settlement, acquired some 20,000 acres of the Delavan Prairie in 1836; and in the following year settlers from the East began to come in considerable numbers. Timber areas along the streams bordering the prairie to the north and east were already partly occupied by settlers from Kentucky.

Because a considerable fraction of this prairie was bought and settled as a tract, the slow spread of settlement from woodland into the prairie characteristic of Illinois grasslands was not here much in evidence. However, the dependence of the Delavan Prairie far-

mers on the timber for fuel, and for construction and fencing materials, was evidenced by many purchases of nearby timber or of small woodland tracts not far away. Not until about the time of the Civil War was the prairie farmer somewhat independent of the woodland: then he planted Osage-orange hedges to serve as fences, and the railroads made available imported coal and white pine lumber.

The line of early settlement halted rather abruptly with the Shelbyville terminal moraine (See Fig. 1.). Much of the lower outwash plain and Illinoian till to the southwest, because of its swampy condition, remained almost unoccupied until after the Civil War. A considerable part of this wet land had been allotted to soldiers who had served in the Mexican War. An Englishman by the name of Scully bought about 23,000 acres of it for very nominal prices. He attempted to settle it with Irish immigrants, but they saw more opportunity on better drained land and few remained. At the beginning of the Civil War this unoccupied land was assessed for taxation at the value of five dollars per acre, less than one-half the value of higher and drier land to the northeast. After the Civil War Germans came in numbers, and have remained to become highly successful and respected.

Even on the Wisconsin terminal and ground moraines only the higher and drier areas could at first be satisfactorily farmed. In the lower places wild fowl nested and reared young on the small streams which provided the only drainage. Especially wet tracts were long left in pasture, usually in the native grasses. Malaria was common until about 1880, and most of the shallow wells were quite likely to be spreaders of disease.

As the area had been surveyed according to the governmental (Jeffersonian) plan, the roads were mostly laid out in cardinal directions, usually only one mile apart, giving a checkerboard effect. Most of the early settlers chose to build along the roads, leaving the inner part of the square in farm lands. Early dwellings were log cabins, but after the construction of the railroads frame houses were built of imported white pine boards.

Corn was the most important crop from the beginning, not only because the climate and soil favored a high yield, but because it could be marketed in the form of swine and cattle. Animals and such grain, including wheat, as was not fed or used could be marketed only by driving or hauling to Pekin (at least 20 miles)

or to Peoria (over 30 miles), both located on the Illinois River. A mill located on a creek about fifteen miles to the southeast of the area at first did the grinding of grist.

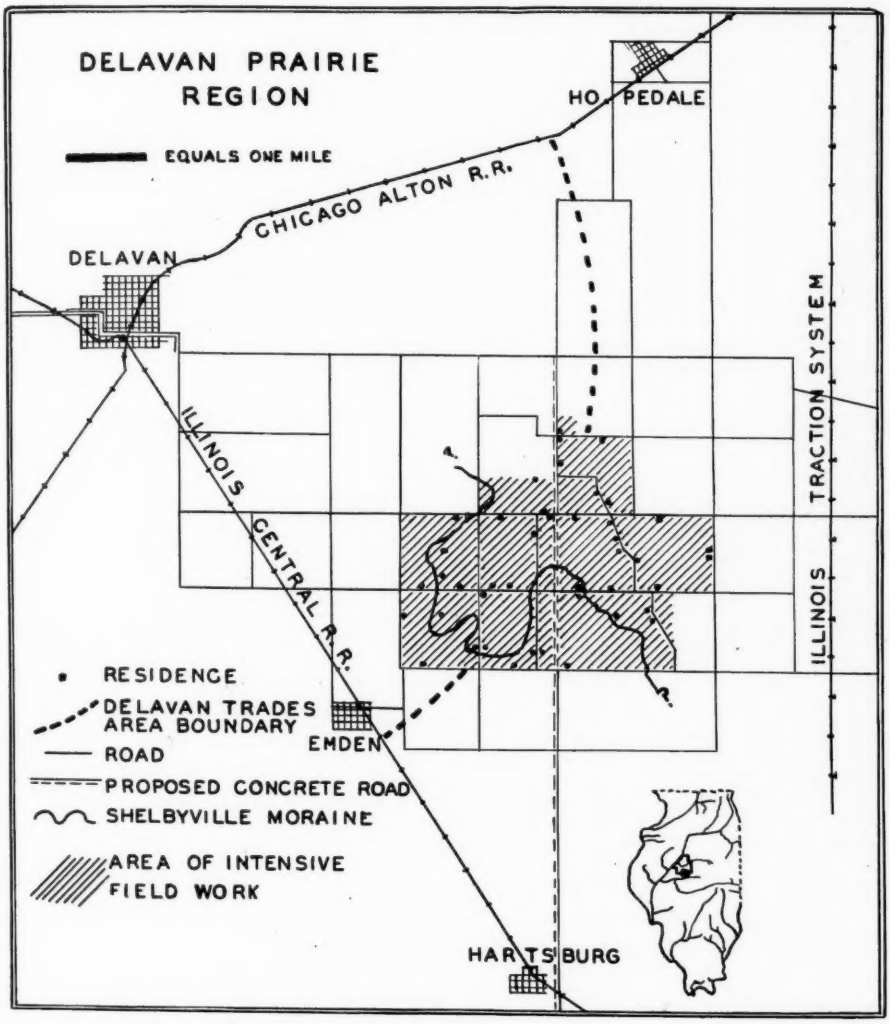

FIG. 1. The Delavan Prairie Region.

RECENT ADJUSTMENTS

Population. The three main movements of population into the area—the Eastern, the Irish, and the German—have now so merged that family names give only a very general indication of racial

descent. The German group, now diluted, has expanded in the face of a declining population for the region as a whole. The 1930 census population is about 20 per cent less than that of 1900. One-half of that decline has taken place since 1920. This decrease is partly to be accounted for by larger farms and fewer families in the area, but also by the fact that the families are smaller with

FIG. 2. A summer view of Delavan, Illinois. "Main Street," the water supply tank, a railroad line, a grain elevator, and a church steeple, may be distinguished amid the shady streets and well kept homes. (Courtesy, The Daily Pantagraph.)

a present average of only two children to the family. Attendance at country schools today is only half that of 1900. The decrease in size of family and increase in childless homes is especially noticeable among the older land-owning families, largely Eastern or Irish.

More than 75 per cent of the present family heads were born in or near this area. Approximately 5 per cent are foreign born. Germany and Scandinavia are now represented by a smaller frac-

tion of family heads than are such southern states as Tennessee, Kentucky, Missouri, which, however, contribute a large fraction of the "hired-hand" group.

The population of the area is about one-half in the villages and one-half on the farms. The farm population is rather evenly distributed on the margins of the land rectangles near to the public

FIG. 3. This productive farmstead is located on a good road. Farm buildings, including the corn crib with a cupola for the power grain elevator, are shown. (Courtesy, The Daily Pantagraph.)

roads (See Fig. 1.). Abandoned sites give evidence that the present generation considers nearness to the public road of even greater desirability than did earlier generations. The rural population averages fifteen to twenty persons to the square mile, or about four or five families of four persons in each square of the checkerboard.

The population of the villages is of course more concentrated. Delavan, in an area of less than three-fourths of a square mile, has a population of almost 1,300. Most of the villages, however, have a population of only a few hundred. They are rather rambling, having developed on the level plain without systematic plan

except for the rectangular blocks that result from the regular spacing of streets (See Fig. 2.). A railroad line and usually a paved road pass thru some part of each town.

Living Conditions. In contrast to the primitive living conditions of fifty years ago, the standard of living both on the farms and in the villages of the Delavan Prairie is remarkably high. Frame

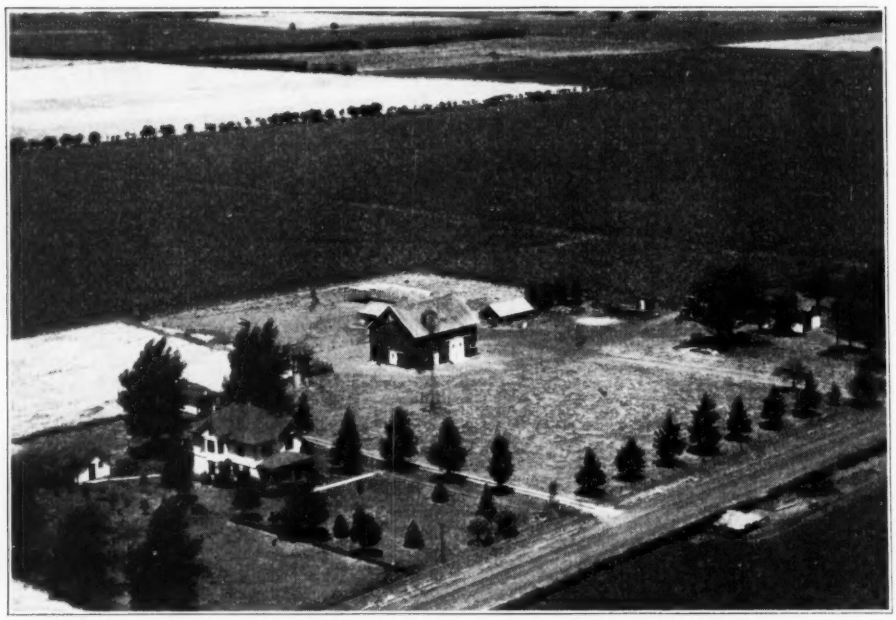

FIG. 4. One of the fine farmsteads of the region. Grain, which is being harvested, and corn are prominent in the landscape. The hedge fences are Osage Orange and may also be seen in Fig. 3. (Courtesy, The Daily Pantagraph.)

structures of two stories are most common, and brick and stone are somewhat used in building farm homes. The value of all buildings averaged close to $6,000 a farm at the 1930 census. The current value of the farm home was then about $2,500. Barns and other buildings are normally spacious and well painted (See Figs. 3 and 4.). All villages and many of the farm homes and barns are lighted by electricity from power lines or individual plants. Electricity is also used to run the household machinery, but the gasoline engine is the main dependence for outdoor power. Good water, supplied by drilled wells sometimes three hundred feet deep, is found on most farmsteads. Most villages have a water tank

for a pressure water supply, altho some still depend on the town pump (See Fig. 2.). Practically every family possesses one or more automobiles, and nearly every home, previous to the present depression, was served by telephone.

Social life on the Delavan Prairie very largely centers in the villages, as does church attendance, now that country churches, excepting those of the Mennonites in the northeast part of the area, have been discontinued. The village band concert of summer nights, the small-town movie, and the occasional pavement dance constitute the chief social functions open to those beyond school age. More intense or diverse amusement must be sought in larger cities at a distance, for example at Peoria, some thirty miles away.

The villages serve the farms in several important respects fully as fundamental as the social aspect, and in turn owe their very existence to compensation for the services they are able to render to the surrounding farms. Even their population is in large part derived from the farms. Successful farmers, and some unsuccessful ones, have "moved to town" to spend their declining years. The villages are foci for the collection and shipment of grain. Here farmers buy many of their supplies, and bank what money they may have, and from these centers gasoline and groceries are extensively delivered to the farms by truck. Delavan has five grocery stores, three of them chain stores. Each averages roughly about $30,000 worth of business a year. Garages have replaced the horse livery. Drug stores, restaurants, hardware, and clothing stores are present altho seldom flourishing on account of the competition from larger cities not too far away. Peoria and other towns attract a considerable fraction of the trade in these commodities, as do the mail order houses of Chicago.

Education. Rural children usually attend local rural schools for the first eight grades. Village children attend a town graded school. In the Delavan Grade School ten teachers have about 175 children in classes, and the yearly cost for each child is about $60. From the rural schools the children graduate to the high schools in the villages. The Delavan High School building cost about $130,000. Here nine teachers are in charge of about 125 pupils, and the yearly cost for each pupil is about $190. Training is offered in such vocational subjects as agriculture, manual training, and domestic science, besides the usual academic subjects. High school

district taxes are collected from an area covering three townships, even from some rather remote areas which seldom send a child to the Delavan system.

About 40 per cent of the high school graduates attend college, and about half of those attending graduate. Very seldom does a college graduate return to the community to live. Law, politics, and teaching are the professions chosen by most of them. Practically all college graduates come from the area of Wisconsin glaciation first settled largely by Easterners. Some single families of that area have contributed more college graduates than have several townships of the area to the southwest, settled later largely by Germans.

AGRICULTURE

Agriculture is overwhelmingly the dominant activity of the area. Rural and village populations are dependent directly or indirectly on the fertile soil and vicissitudes of climate and on the market for farm products. Practically all land in the area can now be cultivated. From 80 to 85 per cent of the land in farms is in harvested crops. Most of the remainder is in permanent pasture excepting about five acres per farm utilized as orchard, house lot, and barn yard, also usually pastured. There is practically no waste land and no timber. Area reported as crop failure amounts to only a few acres in each township. Fields are large, forty acres in many of them and as much as eighty acres in some. All land not in villages, roadways, or railroads is included in some farm. Farms average almost 190 acres in size, with land and buildings valued together at $30,000 to the farm. In 1930 approximately one-fifth of that amount represented the value of the buildings.

CORN

Corn is indeed king of this agricultural regime. From 40 to more than 50 per cent of the land is planted in corn (See Fig. 6.). The acreage varies from year to year with the acreage of winter wheat which succumbs to freezing, and with the surviving stand of legumes in the grain stubbles of the previous season. The yield varies from 30 to 50 bushels an acre, with an average of nearly 40 bushels. Many factors influence the annual yield of corn, but fluctuations of temperature and rainfall during the growing season have a noticeable effect. Decline in rainfall during the hottest part

of the year is not the best moisture condition for corn, nor is too warm a July the best condition of temperature.

No extensively grown crop in the area yields a higher value to the acre in proportion to the cost of producing it than does corn. Proceeds from this crop somewhat offset the cost of plowing and preparation of the soil, the planting and the three or four cultivations of the crop, and the picking, or husking. An estimated two-thirds of the corn is sent as grain to the terminal markets, chiefly Peoria and St. Louis.

OATS, WHEAT, AND LEGUMES

Oats usually occupy about one-fifth of the area. The early summers are generally too hot for oats, however, and injure both

FIG. 5. The Delavan Prairie Region grows an increasing acreage of sweet clover for forage and green manure. Incidentally it makes good bee pasture. (Courtesy, A. J. Root and Co.)

quantity and quality, with the result that this grain is decidedly unprofitable. Other crops are being substituted for oats as rapidly as one can be found which fits better into the rotation with corn. Winter wheat occupies from 10 to 15 per cent of the area. This crop and legumes fluctuate widely in acreage from year to year as a result largely of spring freezes and summer drouth. Soy beans,

mostly used for hay and green manure, are being increasingly substituted for oats.

CROP ROTATION AND SOILS

Rotation of crops has been found to be a profitable practice even on this very fertile brown silt loam and black clay loam. The

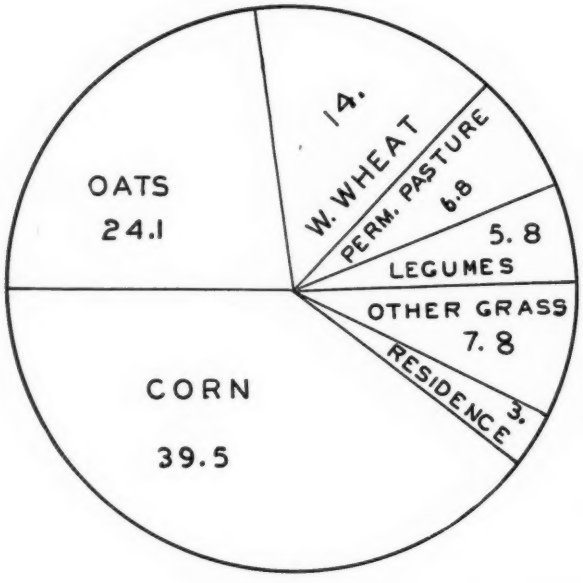

FIG. 6. Percentage of the acreage of land in various crops during 1929 for the area in which detailed field work was done. The facts shown are general for a much larger area.

simplest rotation practiced is: corn, oats, legumes. Another rotation used is: corn, corn, oats, wheat, legumes. Legumes have increased in importance as the high nitrogen content of the loess-covered glacial till has been decreased by cropping. Red clover is still the chief legume, partly because it will tolerate slightly acid conditions. Alfalfa for hay and sweet clover for green manure are increasingly used, altho the soil usually must be sweetened with limestone for these to be successful (See Fig. 5). The black clay loam soils, chiefly occupying the lower areas of poor natural drainage, are less deficient in calcium. A comparison of the two chief soil types shows that enough of the various plant food elements are present in the upper 40 inches of soil to grow the following number of crops.

NUMBER OF YEARS' SUPPLY OF MINERAL PRESENT IN THE SOIL FOR A CORN-OATS-LEGUME ROTATION

	Nitrogen	*Phosphorus*	*Potassium*	*Calcium (Lime)*
Brown Silt Loam				
Upper 40 inches	270	690	6225	3120
Black Clay Loam				
Upper 40 Inches	300	975	5775	9600

It is interesting to compare the two chief soil types as to the approximate number of crops that can be grown if a rotation of corn, oats, red clover is used and if no fertilizer is added to the soil. Both leaching and use of plant food elements take place most rapidly in the upper portions; hence those portions, especially of the brown silt loam, are often so deficient in calcium that alfalfa and sweet clover will not grow well without addition of limestone. It has also been found profitable to supply phosphorus to the brown silt loam, usually in the form of ground rock phosphate. Fertilizers other than phosphates, limestone, and barnyard manure have been little used.

LIVESTOCK

Livestock play an important rôle in the agriculture of the region. Until the last decade fine draft horses, chiefly Percherons, were very important. Swine, however, are the most important animals of the area because in most years they are a profitable form for marketing corn. Almost every farmer keeps from 25 to 150 head. Generally they are pastured on legumes in summer and fattened on corn in the autumn and early winter. The fattening of beef cattle, especially of thin animals shipped from western states, is practised at present by only a few farmers. Some others feed a few head grown locally. Chicago and Peoria are the large markets for animal products, indeed for most of what the area has to sell.

FARM TENANCY AND MANAGEMENT

Approximately three-fourths of the area is farmed by tenants. The areas which are owned by people living at a distance consist chiefly of parts of the Scully estate, which includes some 23,000 acres. This is rather efficiently managed by a man residing in the county, altho the owners live in England. The leases run for only a year, but many of the tenants have remained on the same farm for decades. The lessee owns the buildings and improvements. The

system is not so unsatisfactory as one might expect. None of this Scully land is for sale.

Farms owned by a relative of the tenant are also rather well cared for, since in many cases the tenant expects to inherit part or all of the farm. These farmers generally engage in stock farming rather than pure grain farming. Farms owned by lessors residing in local villages are, in this area, often less successfully managed, improvements are allowed to deteriorate, and little is done in the way of keeping up the fertility of the soil. Approximately 50 per cent of the land has changed owners since 1900, and most of the sales have been to non-farmers. Much of the land (not in the Scully estate) is now for sale, with few prospective buyers.

Transportation Facilities

As shown in Fig. 1, two railroads and one electric line enter the area, and other lines are not far away. These lines are well patronized. Emden ships more grain than any other station on that branch of the Illinois Central.

The system of hard roads is as yet incomplete, but when completed there will be a concrete pavement crossing the area from east to west and one from north to south. The lack of easily available road-building materials such as stone or gravel is evidenced by the fact that only recently have gravel roads been constructed. Even yet application of low-grade oil is depended upon to provide a passable surface. For most of the year, however, roads are open to such surrounding market areas as Peoria, to which most of the livestock are now taken by truck.

Summary

The rich soil, the favorable climate, and the location convenient to large city markets are factors pointing toward a longtime agricultural future. The area is by no means marginal, hence, even granting a decline in the nation's population, the Delavan Prairie will continue to be used as crop land.

The chance traveller across this prairie of the Illinois Corn Belt sees richness, levelness, uniformity, even monotony. But from some slight elevation on the glacial moraine the uniformity appears not unvariegated, the monotony not without relief. A few mental pictures of the landscape as the seasons make their round prove that the area has beauty as well as utility.

The earth and sky of late spring meet in what seems to be a timber line, a result of distant blending of tree-bowered villages and farmsteads. The rectangles of the nearer ground are some of them light green with growing grains and legumes, others chocolate brown tinged with the green of young corn. But with each new day the panorama changes. The clover becomes a lake of pink, then wilts to brown behind the mower. The green of the small grains turns to the gold of midsummer ripeness; and the reaper leaves orderly grain shocks standing in fields of dull yellow stubble. The dark green of the corn hides the brown of the field. Man, with his horse- or motor-drawn cultivators, tracks and retracks the cornfield sea. That sea becomes a forest, takes on an even top of green-grey tassels, then browns and ripens under the drying winds of autumn. The grain fields, now bare of the shocks, which have gone to make up the large, yellow straw stack, tinge green with an aftergrowth of weeds, or become chocolate under the plow. Along with the bright autumn colors of the hedges and trees the green of fall-sown wheat deepens under the warmth of the Indian summer sun.

In the villages beyond the fields the trees lose their bright hues, and grain elevators and church steeples come more plainly into view. Sheltering trees around the farmsteads drop their leaves, and the white houses and many red barns stand out along the roads.

Finally the snow cover comes,—

And goes. Once more men are active in the preparation of brown seedbeds and the sowing of the grain. Slowly green returns, first to the wheat-grass, then to the trees, finally to the sown fields: the progression of colors goes on as before.

HOME GEOGRAPHY AND ITS RELATION TO THE ELEMENTARY COURSE IN GEOGRAPHY

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HOME GEOGRAPHY DEFINED

Consideration of representative courses of study selected from various parts of the United States shows that in most schools the elementary course in geography has its formal beginnings in the Home Geography of the third or fourth grade. The term Home Geography, however, appears to be interpreted differently by different groups. To one, it means a study of the homes of people living in different parts of the world; to others the term is synonymous with local geography; while a third group emphasizes study of the local geographic environment but includes, also, consideration of some other parts of the world which supply the needs of the home locality. In the discussion which follows Home Geography will be understood to mean local geography; other possible phases of Home Geography will not be considered and we shall define it as (1) a study of the local geographic environment and (2) consideration of the relations of the geographic environment to the activities of the people of the region.

That a course in elementary geography begin with a study of local geography seems to need little justification. It is one part of the entire geography course which can be presented by direct contact with the things studied; it is a logical approach to the study of regions which, probably in most cases, cannot be visited but whose various geographic situations children interpret in terms of those with which they are already familiar. A child who is led to see the relationships between the geography of the region in which he lives and the activities of its people will have been given a sound foundation for the work of the following years.

A WORKABLE COURSE IN HOME GEOGRAPHY

Admitted that Home Geography forms a fitting introduction to the study of geography, we shall try to show that its possible content brings it within the interest and appreciation of children beginning the study of geography. The suggestions which follow are not intended to be inclusive of all possibilities. They recognize

that a course organized for beginning classes necessarily must be very general; that the teacher of the introductory work in geography must be, to a very considerable extent, the maker of her own course of study; that she must adapt what is, necessarily, a generalized course to the local situation; and that what she will teach one year in one school may be quite different from that which another situation will demand.

Food, Clothing, Shelter. Since three great needs of people everywhere are food, clothing, and shelter, study of foods, clothing materials, and materials used for shelter and fuel seem to deserve considerable attention in plans for beginning geography.

Many children have very vague ideas as to the source of the things they eat and wear and which are used in the building and furnishing of their homes. Their thought in the matter does not go beyond the store or market. There is little thought as to whether things are home produced or imported.

The kinds of products mentioned, food, clothing, and shelter, may be divided into three groups. In one group may be put the products of the home locality; in the second those that are produced locally at one time of the year but are shipped from other localities at times when they cannot be produced locally; and in the third, those products which come wholly or chiefly from other countries or other parts of our own country.

The grouping completed, our study is chiefly concerned with the products of the home region and their sources, and simple consideration of some of the geographic conditions favorable to their production. Always there should be emphasized the various kinds of work of many people preparing the various products and bringing them to the people who use them. The home community as part of a larger world is a thought to be kept constantly in mind. The home region supplies some of its own needs, perhaps some needs of people remote from the home region, and the home community needs the help of the world outside in supplying many of its wants. Some of the more simple transportation problems involved logically enter into the study.

In all of these studies direct observation should be stressed. The dairy farm, the receiving station, the butter or cheese factory, the field of corn or other grain, the orchard, the market garden, the lumber yard, and the quarry are all illustrations of places to which observation trips may be made in one or another locality.

When visits to a product in its home cannot be made, specimens of the product brought into the schoolroom and many pictures, illustrating the points observable in the home of the product should be substituted, tho these may always be used in addition to direct observation as well. Interesting exhibits may easily be planned and arranged.

Weather. Weather study should make up an appreciable part of the first year's work in geography. Children can be taught to read the thermometer and the wind vane, to observe sky conditions, and to look for evidences of the presence of moisture. If regular observations are made and recorded, their organization and interpretation should lead to interesting conclusions regarding apparent local relationships between temperature, wind, and moisture. The effects of weather on their own various activities as well as on the activities of adults may be constantly brought out. Weather characteristic of the different seasons needs attention and comment also. No better foundation for interpreting weather and climatic conditions in other parts of the world can be laid.

Sun and Its Relations. Another worth while study which is easily made interesting to children beginning a study of geography is that of the sun and its relation to themselves. The children may already have thought of it as a source of heat and light but a record of observations to determine how many clear, partly cloudy, and cloudy days are experienced during a given period can be made worth doing.

The sun's relation to shadows is perhaps more interesting. The short noon shadow by which it is so easy to tell directions, the long shadows at sunrise and sunset with their significance, the time and place of rising and setting and the height of the sun at noon all make interesting observations. Observations of the noon sun about two weeks apart during the school year, its position with reference to the horizon and the zenith, and the length of the noon shadow are worth noting, recording, and relating to the length of day and night. Changes in the position of the sun with their resulting consequences and their effects on the activities of children and adults are important points in the study of the seasons. An appreciation of seasonal conditions in the home region will make more keen the appreciation of similar and different conditions in other parts of the world.

Land and Water Forms. The land and water forms which can

be observed and their relationships seen form another interesting introduction to the study of the physical phase of geography. To be sure the relationships which come within the comprehension of primary children must be simple but it is a rare locality in which some are not apparent. To illustrate: thru the village in which the writer spends the school year flows a small river. The village site was selected more than 140 years ago because of potential water power at this particular place on the river. The use of the river for power at this village today is negligible, but there are other relationships of the river to the village which are easily apparent. It is the source of the village water supply; ice is cut from it; some logs are floated down it in spring to mills farther down stream; it is much used for bathing, swimming, boating, canoeing, and skating; it adds materially to the attractiveness of the village, views across and up the river being especially beautiful. The lower grades are a good place to make a beginning in instilling in children an appreciation of the beautiful in natural scenery. Our river, unfortunately, is still used as a carrier of the village sewage but that this is an unwise use for a river can be pointed out nicely and a worthwhile lesson taught. Lastly, bridges connecting the separate parts of the village have had to be built and must be maintained, a real relationship felt by taxpayers. Along with these interesting relationships the children may learn such terms as current, banks, island, upstream, and downstream from actual observations.

The hills and valleys of this particular region with their gentle and steep slopes can be related to the dairy industry but also to skiing, tobogganing, and coasting. Weather and seasonal studies should be related also. What better introduction to the physical background of human activities could one make?

Directions. Work in the first year of geography should include teaching directions in space, already referred to in connection with studies of the sun. We may teach north as the direction in which the shadow of a perpendicular object points at exact noon. We may also teach children to associate the position of the sun as observed at different periods of the day with definite directions. The work may be extended to include telling directions at night from observation of the stars. Not many geography lessons in any grade are more useful and satisfying than those which make it possible for one easily to orient oneself. When places distant from

the home locality are mentioned, pointing in their direction helps to make them seem more real.

Recreation and Occupations. Home Geography in the first year of geographic study should consider the occupations and industries and the favorite sports and recreations of a region, but rather as they are related to such topics as those already considered than as separate units. The study of food products involves simple study of farming and work on a farm may be talked about in connection with weather and the different seasons. The topography of the region of course enters also, as may a consideration of roads and other transportation facilities. Similarly other local occupations and industries should be touched upon.

Map Drawing and Interpretation. Simple map work involving both the drawing and interpreting of simple maps offers other interesting possibilities. The first work may consider only general proportions and relative positions. Later, when directions and the representation of directions have been taught in connection with weather study, simple scale can be presented and maps of the school room, school grounds, and the region around the school house be made. On the map may be located various points of interest and importance not necessarily because they have geographic significance but because the study of their locations furnishes worth while problems in map making and map interpretation. Simple village or city maps may then be introduced and interpreted. Much of the value of map work in the first year of geographic study is conditioned on having children work as frequently from the map to the area mapped as vice versa.

Review. The first year's work should not be concluded without an organization of various geographic facts relating directly to the home locality. Some facts which may well be considered are: What is the location of the home region with reference to the surrounding region? Why did a city or village grow up in this location? How many people live in the home city or region? What work do its people do? What reasons are there for these special kinds of work? How are its people dependent upon others for their needs? To what extent does the village supply the needs of others? What means of sending out some products and bringing in others does it have? What means of communication with other parts of the world does it have? What kinds of recreation do the people enjoy? What reasons are there for these special kinds of play? What are some effects of weather and climate on the work and

play of the people? Of what value is it to be able to tell directions and to read the village or city map?

This brief outline presents suggestions for a workable course of study for the first grade in which geography is taught. Obviously some of the suggestions can be worked out better in one locality, others in another. All that has been attempted is to point out what some of the possibilities are. Some needed tools have already been suggested. The work to be strong must certainly be based on many direct observations, but specimens, pictures, and local maps have important places.

RESULTS AND THE TEACHER

The worth whileness of any course of study can be judged by the results which a good teacher may accomplish thru its use. Home Geography in the first year of geographic study will help children to see the various units of their geographic background as real and with real relationships to different groups of people of the community. Home Geography will give children knowledge of some simple geographic facts and factors. Home Geography will give geographic training which will prepare directly for later work and will result in an interest in geography that will carry into the work of later years.

Perhaps more than in any other phase of geography teaching the great responsibility is with the teacher. She need not be a geography specialist, but her real interest in and enthusiasm for the subject are practically indispensable. The geography she teaches must very properly be rather closely correlated with reading, spelling, and nature study, but she should, at the same time, be able to make it stand out as an individual subject, largely because of the added interest to the children which this position gives it. The primary child is more than ready to be interested in the new work and the primary teacher who lacks the initiative needed to work out a course of lessons in the geography of the home region of real interest, who does not appreciate the possibilities of easily instilling lasting interest and enthusiasm for geography, has missed a real opportunity.

HOME GEOGRAPHY AFTER THE FIRST YEAR OF GEOGRAPHIC STUDY

Unfortunately most courses of study in geography make no mention of Home Geography beyond the first year of geographic

study but that it has a very definite place in the work of each grade which follows is indisputable. The type studies and journey geography of the second year of geographic study need constant reference to the home region whether the questions considered have to do with land forms, water bodies, weather and climatic elements, seasonal conditions, products, industries, or other topics. Only as comparisons with the home region are made and points of likeness and difference brought out, does the new work have real significance. Obviously the better a child knows the geography of the home region, the stronger the second year's work will be.

The same cannot be too much emphasized in the work of all later grades in geography in the elementary school. The Home Geography of the beginner is necessarily very simple. In each succeeding grade Home Geography of more mature and advanced character should be constantly introduced. Such geographic conditions as the length of the growing season and the amount and distribution of rainfall determining the production of a new crop in a new region means little unless compared with those with which the home crops are concerned. The relationships of a river to human activities or the character of a harbor and its relations to the growth of a port mean more when the study can be intelligently associated with a home river or harbor. Other possible examples are legion.

The study of the United States Geological Survey maps of the home region is a fascinating study in which upper grade children especially can be easily interested. The value of the study as an introduction to further map studies is obvious.

Home Geography has a definite place in the work of every grade in which geography is taught and the worth whileness of the geography taught is undoubtedly to a considerable extent conditioned on the place which it is given.

The necessity for an intimate knowledge of local geography on the part of the teacher of every grade is obvious. But the added interest and permanent value which constant use of Home Geography in every grade will give should prove ample compensation for the time and effort the teacher, new to the geography of a region, must give to its mastery.

THE ELEMENTARY PRINCIPAL AS A SUPERVISOR OF GEOGRAPHY

C. E. MARSTON
Principal of Garfield School, Kansas City, Missouri

The responsibilities of an elementary principal are not uniform or clearly defined. As teaching principal, classroom instruction is his main duty. Traditionally, in larger schools, he spent most of his time on clerical or administrative work. Recently, emphasis has been placed on supervision as his most important function. In spite of numerous pressing duties, it is possible to give the major portion of his time to the improvement of classroom teaching. If he feels unprepared to undertake this difficult art, university summer schools have excellent courses to fit him for this essential work. He must be a student of geography, of child psychology and an able teacher. We will never have any effective supervision of geography unless the elementary principal does it. He understands the preparation and personality of all of his teachers; he knows the abilities and needs of the pupils and he is able to observe daily and direct the teaching. Geography is not a book; it is difficult to teach well; the results of good instruction are of inestimable value, hence the need of competent supervision.

THE NEED AND STATUS OF CURRENT TEACHING OF GEOGRAPHY

In this age of vast scientific achievement, far flung world trade and complex international relations, it is astonishing that so little attention is given to geography. In the grades it is taught to immature children, often by untrained teachers; the high schools all but ignore it. It is plainly the basis of present day social and industrial problems. One may well be amazed that so little time and effort are devoted to it in our schools. Can we hope to produce men and women able to solve the problems of the day by offering such inadequate training? In large measure, the outcome will be decided by the efficiency of the elementary principal as a geography supervisor.

In surveying the field, it is difficult to determine the exact status of geography teaching. Rigid standardization is impossible and undesirable. The emotional accomplishment resulting in right attitudes and appreciations cannot be measured tho they are of highest value. Understanding relations is worth more than information but it is harder to test. No general agreement is found as to curriculum

or method. Each teacher is "a law unto herself." Our texts, library material and visual aids have been greatly improved. Still, it is not uncommon to find pupils who are bored with geography and teachers who detest to teach it. This might argue that it is yet poorly taught in many of our schools. It is only fair, however, to mention the splendid facilities of our colleges and universities for training geography teachers. Never has travel been so extensive or so well planned. Never have teachers been more broadly educated. It is by no means rare to find excellent geography teaching in our schools. It is obvious the principal is needed to secure maximum results in this confusing situation.

CAUSES OF FAILURE AND WAYS OF IMPROVEMENT

Where failure exists it is due to poor teaching and for this the principal is partly responsible. One cannot always condemn the teacher. It is likely she has never really studied geography. If she took a course in methods, she was not ready to profit by it. Many years of experience in training teachers of geography in state teachers colleges lead me to believe that knowledge of *geography* and the *child* is the chief essential. As an instance of the training I consider of greatest worth a teacher I now supervise has taken the following summer school courses in geography: University of Wisconsin: Principles of Geography and South America; George Peabody College: Materials and Methods of Geography and Geography of World Problems; University of Southern California: Africa; University of Virginia: Human Geography and North America. As these courses were taken under able geographers and studied in widely varied environments they have been of immense value to the teacher. The teacher who does not know geography cannot reach worthwhile objectives. Unable to grasp the meaning of controls, her work is superficial and meaningless. One bewildered teacher who was told she needed *background* for her work innocently inquired, "Who is the author?" Well, whatever it is, there is neither interest nor inspiration without it.

CHARACTERISTICS OF A SUCCESSFUL TEACHER OF GEOGRAPHY

The following are characteristic of a good teacher of geography: She is a well educated individual. Her interest in geography is genuine. She utilizes controls and selects geographic material

wisely. Her facts are accurate and maps are intelligently used. Her problems are well organized and the pupils get vivid pictures of geographic regions. She is familiar with children's geographical literature. She is not a slave to method and gives wise guidance to pupil initiative. The text is an aid but never her master. She emphasizes local geography in her comparative study of regions. She motivates drill on essential facts and locations and the class assignment cares for individual differences. She devises her own tests, checks results and follows with remedial teaching. This ideal teacher has a fine personality; a love for children; a true philosophy of geography; a keen sense of humor and is happy in her work.

THE PRINCIPAL AS A GEOGRAPHY SUPERVISOR

How can the principal help the teacher? Fundamentally, he can encourage growth thru geography courses, travel, reading and lectures. He can give a *super*-vision of geography if he has one. He can lay a broad foundation for teaching by insisting that these principles be observed:

Man's dependence on nature.

Human interdependence—social, political and economic.

International understanding and good will.

The principal can supply lists of geographic laws, problems, devices and exercises, tests, references, pictures, museum specimens, etc. He should urge each teacher to become a member of the State Council of Geography Teachers; attend its meetings and regularly read the JOURNAL OF GEOGRAPHY.

A principal can be of special service by preventing inaccurate statement of facts or causes. These arise because of unrevised texts; lack of physiographic knowledge by the teacher; unscientific articles in newspapers; popular superstitions; faulty observations by tourists, etc. It is probable that half of what is taught is incorrect or incomplete. Among such common errors are: Teaching climate as solely governed by latitude, as the Torrid Zone; failure to estimate properly the influence of ocean currents. It is often taught that the extreme cold of Labrador comes from its nearby current. The heat of the Chinook wind is usually traced to the Japan Current. The North Pole is taught as the coldest part of the earth; the Equator as the hottest. Arctic lands are seen as worthless and mountains are supposed to always be rich in minerals. Climate is thought to undergo capricious changes as, warmer winters, increased rain-

fall and more frequent tornadoes. The teacher says, "The top of the map is north" tho it seldom is. She confuses direction with altitude as "down south." Pupils are led to believe the Dutch usually wear wooden shoes and that Eskimos always dwell in igloos of snow and ice. Brazil is taught as an important rubber producer tho less than 5 per cent of the world's supply comes from this source. The child sees the climate and vegetation of Australia as suited to sheep instead of favorable to the sheep industry. The real reasons for great cities, manufactures and important trade routes are often not discovered. People are taught as "queer," not as different and no reason is found why they are unlike.

It is frequently asked: "Should the principal do demonstration teaching?" Yes, if he can do it well. Lessons requiring physical or mathematical principles are hard for children. The principal might show how to teach seasons, longitude and time, deserts, cyclonic storms, monsoons, etc. Such ideas should be given in simple language and made concrete with inexpensive apparatus. To know geography is not always to be able to teach it. The principal should also train his teachers to conduct field trips. He should be the leader in the use of visual aids—showing how to get the best results from maps, stereographs, slides, films, etc. Under his supervision, teachers should become skilled in the care, use and operation of projection apparatus.

WHAT EMPHASIS SHALL BE GIVEN TO METHOD?

As to method, the principal should be sane, sympathetic and intelligent. Method and subject matter should be seen as parts of the same thing. The method should fit the unit taught; be adapted to the preparation and personality of the teacher and the needs and abilities of the pupils. We have got away from "Sailor" geography and no one would contend for formal drills on unrelated information. Any large unit as the topic, type, journey, problem or project may be selected. All should be used to afford variety. If preference must be given, I should favor the short problem as it is a natural way to study rational geography. The appreciation lesson is least used and is most valuable. The child should visualize. Word pictures stimulate the imagination. This is illustrated by a description of the desert by Van Dyke.

> The feeling of fierceness grows upon you as you come to know the desert better. The sun-shafts are falling in a burning shower upon rock and dune, the wind blowing

with the breath of far-off fires and withering the bushes and the grasses, the sands drifting higher and higher are burying the trees and reaching up as though they would overwhelm the mountains, the cloud-bursts are rushing down the mountain side and through the torn arroyos as though they would wash the earth into the sea. The life, too, on the desert is peculiarly savage. It is a show of teeth in bush and beast and reptile. At every turn one feels the presence of the barb and thorn, the jaw and paw, the beak and talon, the sting and the poison thereof. * * * Everything is at war with its neighbor and the conflict is unceasing.*

The principal should supply stories of adventure with a rich geographic background. Two great needs exist in classroom teaching viz., more thought questions and better organization of problems. Here the supervision of the principal should be invaluable.

Unless a principal has sound ideas of method and geography, it is easily possible to do great harm. One demanded of a trained teacher that she stop wasting time with problems and teach the map and another advised, "Stay with your text, you don't need supplementary readers." When a good teacher confronts such supervision, she is likely to be made very unhappy. None at all would be better.

THE TECHNIQUE OF SUPERVISION

The plan of supervision should be as simple as possible. Teachers meetings should consider fundamental principles. Grade conferences should deal with specific problems. All formality should be avoided in visiting the classroom. If possible have the teacher invite you to observe some interesting work. It is well to sit in the rear of the room, take no notes, do not interrupt the teacher's plan and avoid a critical attitude. In conference, center the discussion on what the pupils were learning not on the faults of the teacher. Suggest definite ways to improve the work. If the teacher is interested, help her plan a week's work and help her carry it out. Praise merited success and encourage her to feel she will become a great teacher of geography. Do not drive, be human and helpful. Keep your teachers reading geography to keep alive mentally. So much of their work is drill to establish skills and habits that they are likely to retrograde in scholarship. So much routine causes them to fall into ruts. Geography will do much to relieve the monotony of the "terrible grind" so common to elementary education.

Teachers need assistance in interpreting facts. In dealing with the climate of the Pacific States a principal suggested these questions: Why is there greater uniformity on the Pacific coast than the

* Van Dyke's, "The Desert," Charles Scribner's Sons, New York.

Atlantic (study isotherms)? Why do we find the greatest rainfall and aridity on the Pacific coast? What has climate to do with producing the great trees of California? Why is our heaviest snowfall in the Sierra Nevadas? How does climate favor the motion picture industry at Hollywood? Why will oranges grow in the Sacramento Valley as far north as Kansas City? Why is the Pacific Northwest often covered with fog? Why is there so little seasonal temperature range at San Francisco? Why has climate made Los Angeles a great city? Geography that does not arouse thinking powers is of little interest or worth.

If geography is to occupy an important place in our schools it must be better taught. Much of the indifference of the taxpayer arises from a memory of geography as a lifeless and useless study. There flashes in his mind long lists of map questions of capes, islands, capitals, boundaries and scattered bits of information. Have you not heard some one say, "I never liked geography. I could never learn the names of all those places." Modern geography is a comparatively new study. It aims to explain the vital relation of man to his environment. From this point of view, facts are related and therefore interesting and easily retained. Thru the printing press, the radio and the airplane we have gained world interests. No longer can we be provincial nor should we desire to be so. Geography enriches our home life, trains for useful citizenship and aids in securing world peace. Never has our complex civilization had greater need for real geography and never have our teachers been better trained to supply it. It only remains for our elementary principals to prove themselves wise and sympathetic supervisors of geography.

TEACHING UNIT ON JAPAN*

WALTER S. CREWSON
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OBJECTIVES

A. Attitudes

1. To develop a sympathetic attitude towards the Japanese people thru an appreciation of their major problems (in their environmental setting) and a consideration of potential solutions for these problems.

B. Abilities

1. Ability to explain the reasons why the Japanese live and work as they do in various parts of the empire, in the form of relationship statements.
2. Ability to use maps, pictures, indices, and other sources of information in the solution of geographical problems.
3. Improved ability to think geographically thru the definite application of geographic principles.

C. Skills

1. Skill in presenting geographical information in a concise way thru the making of maps, selecting of pictures, statistics, and various other tools of geography.
2. Skill in writing concisely, stating facts clearly and in few words or sentences.

LESSONS

I. The Most Crucial of Japan's Problems

1. Interest lead.

   (Place on the blackboard, or in mimeographed form, the following data, which has been secured from the *Journal of Political Economy,* April and June, 1929.)

   a. Kofu tenant farmer (Better off than average in this area)

Acreage of farm	2.25
Average acreage for Kofu	1.75
Percentage of land in rice	66⅔
Income from crops	$567
Expenses—	
Rent	$261
Fertilizer	98
Total expenses	$359

* Presented here as it was used in the eighth grade. It has been adapted to and used in the seventh grade also.

b. Gifu tenant farmer (Slightly worse off than average in this area)

Acreage of farm	1.7
Average acreage for Gifu	2.0
Income from Crops—	
1st crop	$392
2nd crop	50
Total	$442
Expenses—	
Rent	$150
Fertilizer	37
Seed	2
Total expenses	$189

2. With these data in the hands of each pupil, conduct the following exercise.
   a. Find net profit from the year's enterprise for each farmer.
   b. Compare this amount with the amount of the rent in each case.
      State what percentage of the gross yield the rent equals.
      Compute the rent per acre in each case.
   c. If the landlord considers his rent a 6 per cent return on his investment, how much value does he place on an acre of land? Compare this value with an average acre of Ohio farmland.
   d. If the tenant farmer in each case were to save all that he realized from each year's crop, in how many years would he be able to buy his land?
   e. What percentage of the yield is the total operating expense for each farmer?
3. Generalizations drawn from above.
   a. Land values are extremely high.
   b. This brings about proportionately high rents, exceeding in some cases the amount realized by the tenant.
   c. The tenant farmer realizes so little on his average year's efforts, that he is rarely able to purchase his land.

II. The Reasons for the Problem

1. Interest lead.
   Why should the above situation prevail in Japan?
2. Reference material to be examined by the class in the solution of the problem.

a. Any well defined physical map of the country.
b. Statistical data expressing total area and population of Japan proper. (Any recent elementary or secondary school geography book should answer this purpose.)
c. Reading; Barrows Parker: Europe and Asia, p. 167.

3. Exercise based on above outlined preparation.
   a. What is the character of Japan's surface features?
   b. What is its total area? Population? Compute density of population a square mile.
   c. Evaluate this density in terms of the physical features. Does it bespeak a more crowded condition than would a similar density on a plain, all other factors being equal?
   d. Answer this question, "Do you think Japan depends on the outside world for much or little of its food supply?" Base your answer on your reading from Barrows-Parker: Europe and Asia.
   e. Discuss the data from lesson one in terms of this information.
4. Generalizations drawn from above exercise.
   a. The surface of Japan is characterized by a rugged mountainous heart, flanked by a narrow coastal fringe, rendering but a small fraction (about 1/6) of the total area suitable for agriculture.
   b. Judged in terms of surface, this density (about 415 a square mile) bespeaks a much more crowded condition than would a similar density in a plain, all other factors being equal. Density a sq. mi. of arable land would be very high.
   c. Due to its isolation, Japan has developed the ability to be nearly self-sufficient agriculturally. Hence, in its relatively meager acreage of arable land, Japan is nearly satisfying the national food demand.
   d. The small farms, high rent, and general poverty of the Japanese farmer are due to overpopulation; the pressure of population on the land resource.

III. The Solution to the Problem

1. Interest lead.
   What are the Japanese doing as individuals, to maintain a fairly high standard of living in the face of so tremendous a handicap?

Place the following data in the hands of each student. (Source—*Journal of Political Economy,* April, June—1929.)

Average budget for 35 Japanese tenant farmers

Income—		Expenses of farming—	
Rice crops	$502	Rent	$252
Barley and others	32	Fertilizer	104
Vegetable or gardening crops	96	Taxes—house and water rights	15
Wages (Income)	28		
Total	$658	Total	$371

Estimated living expense for a family of six

Food	$172
Clothing	26
Shelter, light, fuel	22
Wages paid out for necessary labor	22
Miscellaneous	67
Total	$309

2. Exercise based upon above data.
   a. (For review) Compute the percentage of the total yield that was expended for rent. (Compare this with your own family budget.)
   b. Subtract farming expenses from total yield. Then compare this amount with the estimated living expense of a family of six. What discovery do you make?
3. Problem growing out of above exercise: How does the Japanese farmer manage to keep his budget balanced?
   a. Assignment. Barrows-Parker: Europe and Asia, pp. 168-174, or parallel material.
   b. Discussion based on reading of above assignments.
      (1) Enumerate the ways in which the Japanese farmer meets the problem of land scarcity and an unbalanced budget.
      Show how each helps solve the problem.
      (2) How do you account for the scarcity of farm animals in Japan?
      (3) Why is fishing a major industry?
      (4) Show how each of these kinds of work is related to natural environment.
   c. Essential facts and principles.
      (1) The Japanese farmer meets his major problem by—
      (a) Using land for rice.

(b) Growing upland food crops.
(c) Practicing interculture.
(d) Raising tea—a cash crop.
(e) Producing silk—a cash crop.
(f) Spending much thought in intensifying his agriculture, and in protecting his crops from destruction by disease.
(g) Doing the majority of the work by hand, thus leaving out the inefficient practice of raising farm animals.
(h) Living simply.

(2) Fishing is an important industry because of the necessity of supplementing the food supply in view of the scarcity of farm animals. The very irregular coast supplies many small harbors as safe havens for fishing boats, and a current of cold water in the ocean, flowing from the north along the northeastern shores of Japan, stimulates the growth of fish.

(3) The raising of rice is an important industry because of the following factors—
(a) A growing season, in most parts of Japan, long enough for rice to ripen.
(b) An abundance of water for irrigation.
(c) The quantity of rice yielded by one acre is greater than that of any other grain.
(d) Rice keeps well, and is highly nourishing.
(e) Japan has an abundance of workers to supply the large amount of hand labor necessary to produce this crop.

(4) Tea production is related to the fact that much land is unsuited, due to its irregular surface, to rice culture, and to the fact that some parts of Japan have considerable periods of hot rainy weather.

(5) Sericulture (silk culture) is related to the fact that the mulberry tree will grow in mountain valleys, and to the readiness with which this crop may be converted into cash.

(6) In addition to these types of work, the Japanese conduct home manufacturing on a considerable scale, offering for sale the articles made, in the market cen-

ters of the world. Their cheapness, of course, is related to the labor cost.

d. Exercise: Prepare a paper on, "The Function of Silk in Japanese Farm Economy." Accompany this with an outline map showing silk-producing regions.

IV. Problem: How are the Japanese, as a nation, attempting to solve the problem created by population pressure?

1. Assignment.
   a. Read Barrows-Parker: Europe and Asia, pp. 175-179.
   b. Review the efforts of the individual in solving the problem.
   c. Decide upon whether Japan may become a great industrial nation, by noting the factors given below necessary for such a rise, and noting their presence or absence in Japan.
      (1) Coal and iron.
      (2) Water power.
      (3) Centralizing home manufacturing.
      (4) Natural advantages for transportation.
      (5) A large home market.
   d. Determine to what extent Japan is becoming industrialized.
2. Discussion based on above assignment.
   Lead class to discuss potential solutions for the national problem, as
   a. Industrialization.
   b. Further intensification of agriculture.
   c. Emigration.
   d. Imperialism.
   Conclude by reading to the class from "Danger Spots to World Population"* the chapter on Japan. This chapter indicates the places available for Japanese emigration, Hokkaido, Formosa, Korea and Manchuria, and clearly eliminates emigration as a means of relief from population pressure.
3. Exercise: Prepare a paper on this subject: "The Extent to which Japan, as a Nation, is Attempting to Use the Various Avenues of Solution to Its Great Problem."
4. Essential facts and principles.

* W. S. Thompson. "Danger Spots in World Population." Alfred A. Knopf Pub. Co., New York.

a. A large degree of industrialization would somewhat relieve the pressure of population on the land in Japan.
b. The lack of good coal and of iron ore in great quantities does not foreshadow any great degree of industrialization.
c. Much water power is available, but it is scattered and available only in small amounts.
d. A great social reorganization would be necessary to provide a home market of any importance in Japan.
e. Emigration, at least to those areas which are available at present, is ruled out by unfavorable climatic conditions and inability of Japanese to compete with people maintaining lower standards than themselves.
f. Japan, due to the pressure of population, and to the sudden awakening occasioned by the open door, and to the fact that its insular position makes national defense an imperative issue, engaged in an industrial program of considerable proportions, based for the most part on its large supply of cheap labor, and on foreign raw materials.

TEST

A. Place Geography
1. Three largest islands of the archipelago
2.
3.
4. The capital city
5. The chief silk-exporting city
6. Four places available for Japanese emigration
7.
8.
9.
10. Body of water between Japan and the mainland of Asia

B. Relationship Statements
Show how the following industries are related to natural environment—
1. Rice culture
2. Tea culture
3. Silk culture
4. Fishing

C. Definitions
Define the following terms—
1. Pressure of population
2. Density of population
3. Interculture
4. Sericulture
5. Paddy

D. Facts
1. Three things a nation might do to relieve pressure of population
2.
3.

4. The principal crop of Japan
5. Two cash crops
6.

E. Reasons (state briefly)
1. Why Japan is nearly self-sufficient agriculturally
2. Why Japan has so few farm animals
3. Why Japan is unlikely to become highly industrialized

KEY TO TEST

A. Place Geography
1. Hokkaido
2. Honshu
3. Kyushu
4. Tokyo
5. Yokohama
6. Hokkaido
7. Korea
8. Formosa
9. Manchuria
10. Sea of Japan

B. Relationship Statements
1. Growing season long enough for rice to ripen, much water available for irrigation, level land near coast
2. Large amounts of land too irregular in surface for rice culture; much hot, moist weather in some parts of Japan
3. Mulberry trees thrive in cool mountain valleys
4. Many small harbors; cool waters

C. Definitions
1. Overpopulation in relation to arable land and resources
2. Number of people per unit of area
3. Growing vegetable and cash crops between rows of cereals
4. Producing silk
5. A rice field

D. Facts
1. Encourage emigration
2. Encourage greater intensification of agriculture
3. Promote industrialization
4. Rice
5. Tea
6. Silk

E. Reasons
1. Its long period of virtual isolation necessitated self-sufficiency
2. Overpopulation and small farms eliminate this costly practice from Japanese agriculture
3. Lack of coal and iron in large quantities, scattered water power, little likelihood of large home market developing

REFERENCES FOR TEACHER AND PUPIL

1. Colby, Foster: Economic Geography for Secondary Schools. Ginn and Co.
2. Smith: Commerce and Industry. Henry Holt and Co.

3. Whitbeck: High School Geography. Macmillan Co.
4. Barrows-Parker: Europe and Asia. Silver Burdett and Co.
5. King: Farmers of Forty Centuries.
6. Numerous articles in the *National Geographic Magazine* are rich in pictorial material on Japan. Consult index.
7. Rugg: Changing Civilizations in the Modern World. Ginn and Co.
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A GLIMPSE OF THE CAPE PENINSULA

WERNER CHARLES ZAHN*

CAPE OF GOOD HOPE REGION

At the southern tip of Africa is an attractive coastal region, unlike most of the continental margin from which Europeans have been repelled by aridity or by malarial moisture. It is like part of the northern coast of the continent in having the pleasant Mediterranean type of climate with mild temperatures, moist winters and dry summers. There is a mountainous escarpment between the coastal region and the habitable tablelands of the continental interior, but the barrier is less forbidding than elsewhere and at its foot is a region jutting out slightly southwestward from the continental mass with habitable lowlands and inviting harbors.

At the southeastern end of the projecting region is Cape Agulhas, the most southerly point of Africa; at the northwestern end, 200 miles away, is Cape Columbine; and half way between is the mountainous Cape Peninsula, the outstanding feature of the region, with the Cape of Good Hope at its southern end, and Table Mountain at its northern end.

The peninsula is an outlier of the continental escarpment joined to the coastal plain by a low isthmus, the Cape Flats. Its length

* Mr. Zahn was killed by lightning while engaged in geographic field study in the Mississippi Valley at Cassville, Wisconsin, June 23, 1919. He was a Briton of German ancestry, born and bred in South Africa, a graduate of the University of Cape Town, a graduate student and Fellow in geography at the University of Chicago, a brilliant and charming person. His death was a loss to geography and to South Africa and America in their mutual relations. His description of the Cape Peninsula was intended to be a preliminary statement and not his last word about his home country. It has been arranged from the drafted introduction to an unfinished master's thesis by a fellow student, Robert S. Platt.

from the Cape of Good Hope to Table Bay is about 30 miles, its average width about 5 miles, and its highest point on Table Mountain 3550 feet above the sea.

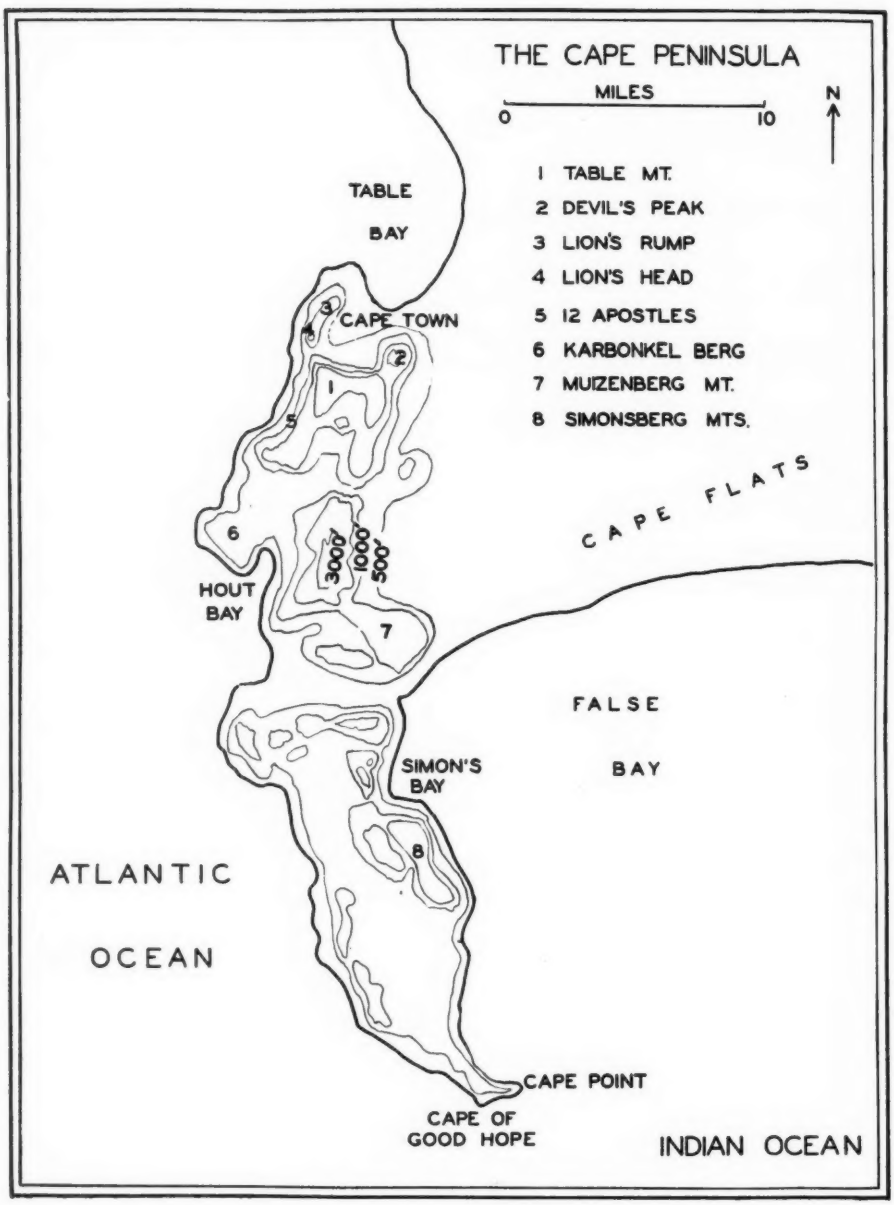


FIG. 1. The Cape Peninsula.

CAPE PENINSULA HISTORY

The Cape Peninsula first came to be of note in mediæval oceanic trade, as an hospitable place just at the turning point for the Portuguese and Dutch East Indian traders on their way between Europe and the Spice Islands. Not only did this place afford water, but also fresh meat bartered from vagrant Hottentots whose wide-horned Afrikander cattle and goats grazed in the valleys and along the streams of the region. It was a halfway postoffice where ships' captains would leave communications from Europe for ships returning from the East, under huge stones on which the names of depositors and addressees were carved.

At first mariners touched at different points along the coast but later regularly in Table Bay at the foot of Table Mountain, which alone yielded a water supply sufficient for the demands made upon it at all times of the year.

Eventually a medical practitioner was sent to the Cape by the Dutch government to form a small settlement with a view to raising vegetables for scurvy stricken sailors and to establish a hospital for more serious cases of this disease. Thus the first white settlement in South Africa gained a foothold on the shore of the Cape Peninsula. The colony persisted and grew, tho changing hands politically as the powers with supremacy at sea changed, in keeping with its strategic sea route location.

The significance of Cape Town with respect to Oriental trade faded with the opening of the Suez Canal, but its strategic position with respect to the interior of Africa has become more important. After seven generations waves of influence spreading inland from this point have been embodied in the Union of South Africa and have been felt far beyond the boundaries of the political unit.

CAPE TOWN

Cape Town occupies a natural amphitheatre rising from the shore of Table Bay below Table Mountain and flanked by spurs of the mountain, Devil's Peak on the east and Lion's Head on the west. Since the crest of the mountain is only two and a half miles from the water's edge, the nucleus of the city is compact, from the business district along shore to residential quarters on the slopes above. Residents of "the Gardens" perched just below the precipitous upper slopes have a view extending across Table Bay and the Cape Flats to the mountain ranges of the continental

FIG. 2. Cape Town looking south from the slope of Lion's Rump. Table Mountain in the center, Devil's Peak at the left, Lion's Head at the right. At the extreme left the city is seen to extend off toward the southern and eastern suburbs; at the right, thru the gap, there is a glimpse of the Apostles. (Photo by Cape Times, Ltd.)

escarpment in the distance. Outlying parts of the city and its suburbs now spread beyond the amphitheatre, three miles northwestward around Lion's Rump to the Atlantic shore of Lion's Head, twenty-two miles southward around Devil's Peak to a naval base on False Bay, and twelve miles eastward across the Cape Flats toward the rural communities of the tributary area.

TABLE MOUNTAIN

Table Mountain is a flat topped mesa, the lower part composed of ancient crystalline rocks and the upper part of nearly horizontal sandstone strata. On this miniature tableland, six or eight square miles in area, are the springs and reservoirs from which the city obtains most of its water supply. As the table top is slightly concave, most of the rain falling on it is collected in the reservoirs either by surface runoff or seepage. The surface is spongy or boggy in winter, and moderately damp even in summer, kept so by the "Table Cloth," a white cloud which is frequently spread over it by the prevalent southeast wind. Heather and rushes form the main vegetation of the surface.

The east and west escarp-

ments of the mountain are as precipitous as that on the north tho less regular, notched by steep ravines or "kloofs" to form on the eastern side a row of peaks overlooking the Cape Flats, and on the western side a succession of spurs, "the Twelve Apostles," their heads 3000 feet above the shore, their feet washed by the Atlantic. On the south there is a gentler slope down a valley draining southwestward into Hout Bay. The stream here, like others of the peninsula, is a mere brook having a volume of water mainly in the winter season. Low shrubs and stunted trees occupy the slopes, but in the lower part of the Hout Valley there is more luxuriant indigenous vegetation which seems to have been originally a source of wood supply, as indicated by the name Hout meaning "wood."

Similarly conspicuous is a grove of pines and poplars in a small cove on the Atlantic shore just west of Cape Town. Here a white sand beach flanked by granite promontories and pounded by the surf complete the combination which has made this a favorite pleasure place.

Over most of the mountain area burning and cutting have reduced the natural vegetation. But the Forestry Department has been at work and plantations of Northern Hemisphere pines and Australian gum trees are springing up in various places, especially on the slopes about Cape Town and the suburbs trailing southward from the foot of Devil's Peak.

Southern Highlands of the Peninsula

The highland extending south from Table Mountain ends abruptly in Karbonkel Berg on the Atlantic side and Muizenberg Mountain overlooking False Bay with the chief seaside resorts of the peninsula clustered at its feet facing the southeast summer winds. Beyond these peaks is a narrow lowland cutting across the peninsula, occupied by salt pans, by sand dunes sweeping inland from False Bay under the lash of the dry south-east summer winds and by smaller dunes moving inland reluctantly from the Atlantic before the moist northwest winter winds.

South of this gap is another highland area. The Simonsberg Mountains crowding close to the shore of False Bay almost duplicate "the Twelve Apostles." Probably the lack of a coastal lowland at this point is one of the reasons why the metropolis of the Cape did not develop on False Bay, for Simons Bay, containing the

naval base, is probably a finer natural harbor than Table Bay, and False Bay is false only in not providing a waterway across the Cape Flats to the Atlantic.

The western slope of the Simonsberg Mountains is less precipitous than the eastern, and the interior of the southern part of the peninsula consists mainly of heather covered hills and flats. Toward the south the Simonsberg ridge diminishes in altitude to near sea level, but rises again to a height of 840 feet at Cape Point where stands a lighthouse to keep ships off the cliffs of the Cape of Good Hope. Here the currents and winds of the Atlantic meet those of the Indian Ocean; huge breakers beat the shore constantly, a basis for the original name "Cabo Tormentoso."

Heretofore much of the western and southern parts of the peninsula have been inaccessible, but with the completion of a road which is being hewn out around sea promontories most of the picturesque spots will be included in a hundred mile drive along its shores, over its "neks," and across its flats from Cape Town to the Cape of Good Hope.

THE JAPANESE LANDSCAPE

O. D. VON ENGELN
Cornell University

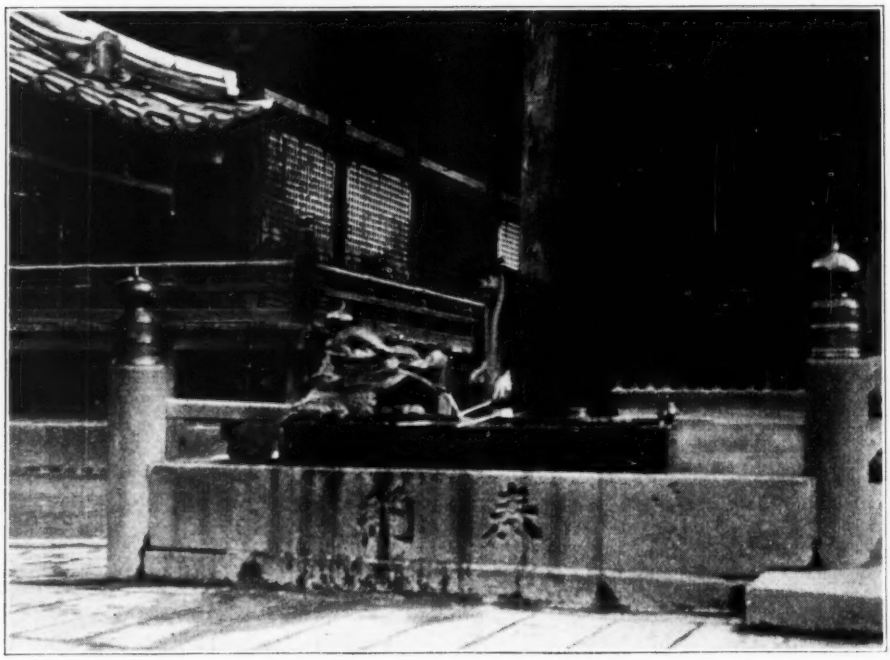
From travel accounts and the illustrated literature so generously distributed by steamship agencies, the average tourist gets the impression that the Land of the Mikado is composed of pagodas, rice fields, miniature gardens, oriental temples and snow-capped volcanic cones. He is usually quite unprepared to discover that a very large proportion of the Japanese population is concentrated on a few relatively small plains that extend along the sea, and are the floors of the larger river valleys. Only one-eighth of the land of Japan can be cultivated. The average density of population (1930) of Japan is 67 to the square mile, the density on the cultivable lands is 400 to the square mile.

If the traveler has been surprised by the distribution of population he may also be quite unprepared to find that the cultivated coastal plains are everywhere cut across by power lines, by telephone and telegraph lines, borne on the same unsightly posts that he knows at home. And that in Japan the railway routes should be literally dotted with gaudy billboards advertising various brands of cigarettes and other commodities is simply shocking to a sense of the fitness of things. The aesthetic revulsion these billboards cause is in some degree offset by the fact that the posters have their advertising appeals in Chinese* characters which makes them slightly picturesque. It is only proper that modern industrial Japan should transmit hydro-electric power generated in its well-watered mountains across the plains at their bases to the factories in its cities on or near the coast. But this development contributes to the dreariness of the plains landscape, especially in winter. In spring and summer when the rice and other crops are green these distracting features are no doubt offset by the continuity and perfection of the cultivation. Even in winter the occasional patch of bamboo forest and the tightly huddled houses of the country village are compensating elements. It is also impressive to note how much is going on even in the midwinter season, how many people are at work in the fields, digging ditches, spading the ground, spreading

* The Japanese and Chinese languages are different, but the printed characters are, with a few exceptions, the same for both languages. Because the Japanese adopted the Chinese characters (adding a few of their own invention) they are properly referred to as such, just as we are accustomed to say "Roman numerals."

fertilizer. It is also a revelation to note how differently and with what different tools the Orientals proceed with the various tasks common to agriculture the world over.

However, the Japan of miniature gardens, of temples and pagodas is located in the foothills of the mountains. There, Nara, Kamakura, and Kyoto are situated. The tourist gets much satisfaction from his discovery that these names are pronounced as they are spelled, and that Ohayo, said much like our Ohio, means good morn-



Japanese gentleman washing his hands and rinsing his mouth, the rite of purification, preparatory to worship. Entrance to the Buddhist temple, Kiyomizu-dera, Kyoto, Japan. (Photo by O. D. von Engeln.)

ing. The hill towns are centers of the earlier civilization of Japan and the sites of many shrines. Kyoto abounds in temples. Worship is not, however, at stated intervals by congregations. There are religious festivals, special occasions, when the multitude does honor to the special deity of a particular shrine. The regular thing is personal worship and obeisance when and as the need is felt. The picture shows a Japanese gentleman purifying himself by rinsing his mouth and washing his hands preparatory to his worship at the Kiyomizu, Buddhist, temple, built in 1624-1644. Purification by washing with water is a religious rite of first importance in Japan.

The chief features of the temples are their beautifully polished floors, their architecture and the gardens that surround them. The landscaping in miniature seen in the temple gardens is perfection. Every shrub, every stone fits in shape and place to build up a picture. And one of the most usual sights in these gardens or their approaches is the Japanese schoolboy with pencil and tablet attempting to reproduce this or that especially pleasing bit. Usually he is succeeding quite well too, but he is generally a little shy about showing the results of his efforts.

GEOGRAPHICAL PUBLICATIONS

L. Dudley Stamp. **A Regional Geography.** Parts I-V. Part I, The Americas. Part II, Africa. Part III, Australia and New Zealand. Part IV, Asia. Part V, Europe and the Mediterranean. Longman, Green, and Company, New York, 1930.

These five small books from the facile pen of Dr. Stamp of the University of London are written chiefly for the higher certificate and intermediate courses of the English University system. To quote from the preface of Part 1, "Again the present series is intended primarily for the first years of a University course, or for the last years of a High School, Secondary School, or College course; that is the post-matriculation stage." They are only a little more than reprints of the two volumes of the Intermediate Commercial Geography series, with the exception of Part V, Europe and the Mediterranean, which is new in toto.

The numerous additions in part I-IV inclusive deal largely with the smaller countries so briefly treated in parts I and II of the Intermediate Commercial Geography. Otherwise the first four books are essentially reprints without alteration. Less stress is laid on the economic aspects of regional geography than in the two volumes of the Intermediate Commercial Geography.

In these five small volumes a great amount of excellent geographic material is to be found. Altho not written for the American School System, the American geographer will find much of value therein. As reference material in brief and concise form they are unexcelled.

FLOYD F. CUNNINGHAM

State Teachers College
Florence, Alabama

Varia Klenova and Louise Lamprey. **Natalia and Nikolai, Children of Russia.** 176 pages, numerous sketches. World Book Company. Yonkers-on-Hudson, New York. 1928. $1.00.

Nellie B. Allen. **Europe.** 419 pages, 177 illustrations, 6 maps. Ginn and Company, Boston, 1928.

Nellie B. Allen. **Our Cereal Grains.** 300 pages, 138 illustrations, 22 maps, 18 tables. Ginn and Company, Boston, 1928. $.80.

Frank J. Bunker. **Hawaii and The Philippines.** 207 pages, 136 illustrations, 12 maps. J. B. Lippincott Company, Philadelphia, 1928.

The first book gives some very clear pictures of incidents in the lives of some Russian children. We have little material on this great country, but this book can be used as supplementary reading in the fourth, fifth or sixth grades. Altho the story takes place during the reign of the last czar, many geographic ideas may be gained from it—ideas such as, the relation of the straight right-of-way of the railroad for four hundred miles from Moscow to Leningrad to the levelness of the country; the lateness of spring planting; the lack of necessity for lights on the streets of Leningrad during certain summer months; the long hours of work in the summer time and the prevalence of "peasant industries" in winter, all partly due to the many hours of daylight in this far northern land in summer, and long nights in winter. Such a kindly interpretation of Russian peasant life may be especially helpful at the present time in giving us an idea of where the present-day peasant started, and perhaps lead us to look with more compassion on the Russian peasant of today.

Miss Allen's book on Europe may be used to supplement the work on Europe in the sixth grade. For the most part it is organized on a regional basis, each chapter dealing with one or more countries, altho it has chapters on industries such as, Ships and Ship Building and The Queen of Fibers, and one is surprised to find included a chapter on Jute, Hemp and Other Fibers. The idea of industries also breaks down the purely regional treatment within chapters and accounts for the grouping together of such countries as Holland, Denmark and Switzerland. The Preface states: "It is through the life of the people that one learns of the character of a nation. . . . The prosperity of the United States is closely bound up with the life, and especially with the industrial life, of other nations, with whom our relations will be closer in the future than in the past. For this reason, our future citizens . . . should become as intimately acquainted as possible with our commercial neighbors across the Atlantic." The book picks out one or more industries in each of the regions studied and in giving detailed descriptions of these industries, furnishes concrete pictures for the pupils using the books. Many of the illustrations are helpful in explaining geographic relationships.

The production of wheat and corn are developed in great detail in her book on Our Cereal Grains, and the raising of other grains, such as the sorghums, millets, oats, barley, rye, buckwheat, and rice in less detail. The book would fit in well with junior high school geography which deals with the United States, or may be used in the grades. The pictures are clear and many of them are of high geographic quality. The dot maps are useful and tables of statistics furnish material upon which may be based exercises for the pupils. Some especially good features are, the chart Round the Year with the Wheat Harvest, the isotherm map of the date of corn planting, the material on sorghums and millets, which shows the difference between these two grains which are often confused, and the work of the Seed Experts of the Department of Agriculture.

"Within the four seas all men are brothers."—CONFUCIUS

Beginning with the statement of Confucius Mr. Bunker's book aids in the development of friendliness among peoples by showing pictures of other folk in their natural environment.

Supplementary material on the Islands of the Pacific is not plentiful, therefore material which gives specific ideas of these regions is welcomed. The author presents not only the geographical factors at work but also the social and historical background. The history of the discovery, settlement and development of the islands helps materially in understanding present geographic conditions there.

The importance of location and factors relating to location are well brought out. The book gives especially good pictures and descriptions of the vegetation. At the end of each chapter are given suggested problems under the title of Matters to be Investigated. The book would be especially helpful in connection with junior high school work, but might also be used for reference work in the grades. NORAH E. ZINK

University of Chicago

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Mr. Lemert is Instructor in Economics and Economic Geography in Duke University and has had a highly varied experience in the business world in the United States and South America. He did his undergraduate and part of his graduate work at Ohio State University where he served as instructor in geography in 1928.

Forests and Forest Activities in Sweden. By Sven Axel Anderson.. 55

At present Mr. Anderson is pursuing his studies for the doctorate at Columbia University. He is author of Iceland's Industries, and joint author of Agricultural Vermont in *Economic Geography*, July, 1931, and January, 1932.

The JOURNAL presents to its readers this month two articles in the field of economic geography. In the near future it will present a third entitled, Japan and the Manchurian Iron Industry.

Making a Living in China. By Minnie M. Duffield 66

Miss Duffield is a graduate of the University of Pittsburgh and teacher of geography in the Horace Mann School, Pittsburgh. She presents here the nineteenth article in our HOW TO TEACH IT series.

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Dr. Pressey is Assistant Professor of Educational Psychology in Ohio State University and author of many contributions to education including three books. She is also joint author of five other books.

In the Desert. By O. D. von Engeln 81

Dr. von Engeln of Cornell University presents this month the fourth article in our series of TRAVEL SKETCHES.

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